

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for managing multicast groups in an InfiniBand system area network, the method comprising:
 - end nodes in the InfiniBand system area network being final destinations for packets;
 - end nodes not including switches or routers, wherein packets are not routed through the end nodes;
 - receiving, by a Subnet Administration in a first InfiniBand end node, a join request from a second InfiniBand end node for joining a multicast group, wherein the second end node is connected to a first switch and wherein the join request is a send-without-receive request that specifies that the second InfiniBand end node is to be a send-without-receive member of the multicast group that can send packets but will not receive packets, and wherein the first InfiniBand end node is included within the InfiniBand system area network, and further wherein switches in the InfiniBand system area network will route packets from the second InfiniBand end node but will not route any packets to the second InfiniBand end node;
 - determining whether the multicast group exists; and
 - if the multicast group does not exist, creating, by the Subnet Administration in the first InfiniBand end node, the multicast group and routing the first switch to discard all packets for the multicast group, wherein when the multicast group is created, the second InfiniBand end node is the only member of the multicast group and the multicast group includes no members that will receive packets.
2. (Previously Presented) The method of claim 1, wherein the step of creating the multicast group includes assigning an InfiniBand multicast local identifier (MLID) to the multicast group, and further wherein the multicast group is not created by a switch.
3. (Original) The method of claim 1, wherein the step of routing the first switch includes inserting an entry for the multicast group in a multicast routing data structure in the first switch.
4. (Previously Presented) The method of claim 3, wherein the multicast routing data structure is indexed by an InfiniBand multicast local identifier (MLID).

5. (Original) The method of claim 3, wherein the entry for the multicast group includes an indication that packets are to be discarded.
6. (Previously Presented) The method of claim 1, further comprising:
responsive to a join request from a receiving end node, updating at least one multicast routing table for at least one switch in the system area network to route packets for the multicast group to the receiving end node.
7. (Previously Presented) The method of claim 6, further comprising:
receiving a leave request from a third end node for leaving the multicast group;
determining whether a single end node remains in the multicast group; and
if a single end node remains in the multicast group, routing a switch closest to the single end node to discard all packets for the multicast group.
8. (Currently amended) A method for managing multicast groups in an InfiniBand system area network, the method comprising:
end nodes in the InfiniBand system area network being final destinations for packets;
end nodes not including switches or routers, wherein packets are not routed through end nodes;
receiving, by a Subnet Administration in a first InfiniBand end node, a leave request from a second end node for leaving a multicast group, wherein the multicast group has a first member at a third end node connected to a first switch, and wherein the multicast group is identified using an InfiniBand multicast local identifier (MLID), and wherein the first InfiniBand end node is included in the InfiniBand system area network, and further wherein the first member is a send-without-receive member that can send packets but will not receive packets, and still further wherein switches in the InfiniBand system area network will route packets from the first member but will not route any packets to the first member;
determining whether the first member is the only remaining member ~~a single end node remains~~ in the multicast group; and
if the first member is the only remaining member ~~a single end node remains~~ in the multicast group, routing, by the Subnet Administration in the first InfiniBand end node, the first switch to discard all packets from the first member ~~for the multicast group~~.
9. (Canceled)

10. (Original) The method of claim 8, wherein the step of routing the first switch includes inserting an entry for the multicast group in a multicast routing data structure in the first switch.
11. (Previously Presented) The method of claim 10, wherein the multicast routing data structure is indexed by the InfiniBand multicast local identifier (MLID).
12. (Original) The method of claim 10, wherein the entry for the multicast group includes an indication that packets are to be discarded.
13. (Previously Presented) The method of claim 8, further comprising:
responsive to a join request from a receiving end node, updating at least one multicast routing table for at least one switch in the system area network to route packets for the multicast group to the receiving end node.
- 14-23. (Canceled)